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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,712	03/04/2002	Nagabhushana Sindhushayana	020180	4802
23696	7590	05/18/2005	EXAMINER	
Qualcomm Incorporated			ODOM, CURTIS B	
Patents Department				
5775 Morehouse Drive			ART UNIT	PAPER NUMBER
San Diego, CA 92121-1714			2634	

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/090,712	SINDHUSHAYANA ET AL.
	Examiner	Art Unit
	Curtis B. Odom	2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 24 January 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1, 3-5, 7-10, 12-46, and 48-114 is/are pending in the application.
 4a) Of the above claim(s) 27-45, 72-90 and 100-108 is/are withdrawn from consideration.
 5) Claim(s) 1, 3-5, 7-10, 12-26, 46, 48-71 and 109-114 is/are allowed.
 6) Claim(s) 91-98 is/are rejected.
 7) Claim(s) 99 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 03 June 2002 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 91 is rejected under 35 U.S.C. 102(e) as being anticipated by Bremer et al. (previously cited in Office Action 5/19/2004).

Regarding claim 1, Bremer et al. discloses an apparatus for estimating a reverse link maximum data rate, comprising:

an estimator configured to determine (Fig. 2, block 14, column 5, lines 38-51) at a source of data a quality metric (SNR) of a link over which data is to be transmitted;

a combiner communicatively coupled to the estimator configured to modify (Fig. 2, block 12, column 6, lines 1-43) the quality metric by a transmission power margin, wherein changing the transmission power modifies the quality metric (column 8, lines 54-57);

a processor block communicatively coupled to the combiner configured to determine (column 6, line 64-column 7, line 23) a maximum data rate of data in accordance the modified

quality metric, wherein the maximum data rate is determined using the minimum transmission power level detected when modifying the quality metric (column 6, lines 44-46).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 92-95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bremer et al. (previously cited in Office Action 5/19/2004).

Regarding claim 92, which inherits the limitations of claim 91, Bremer et al. does not disclose processing the quality metric using a predictor. However, it would have been obvious that once the quality metric was determined that the metric could have been processed in many different ways using many different devices. Thus, processing the quality metric using a predictor is deemed a design choice and does not constitute patentability.

Regarding claims 93-95, which inherit the limitations of claim 22, Bremer et al. does not disclose filtering the quality metric by a linear or non-linear filter, wherein the non-linear filter comprises a peak filter. However, it would have been obvious to one skilled in the art at the time the invention was made to filter the quality metric in order to remove unwanted components from the quality metric to give a more accurate quality metric which would lead to more efficient processing of the quality metric. Thus, claims 3-5 do not constitute patentability.

5. Claims 96-98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bremer et al. (previously cited in Office Action 5/19/2004) in view of Black et al. (U. S. Patent No. 6, 594, 501)

Regarding claims 96-98, Bremer et al. does not disclose the estimator comprises an open loop estimator, closed loop estimator or a combiner coupled to an open loop and closed loop estimator. However, Black et al. discloses an estimator for estimating power which comprises an open loop estimator, closed loop estimator or a combiner coupled to an open loop and closed loop estimator (Fig. 3, column 6, lines 46-65). Black et al. also discloses that open loop estimations are well-known in the art (column 6, lines 46-56) and that combining the closed and open loop estimations yields the total link power for the channel. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the estimator of Bremer et al. with the estimator of Black et al. to perform an accurate power estimation from which an accurate SNR of the channel can be derived.

Allowable Subject Matter

6. Claims 1, 3-5, 7-10, 12-26, 46, 48-71, and 109-114 are allowable over prior art references because related references do not disclose generating an open loop and closed loop estimate of a quality metric, filtering the open loop and closed loop estimates, summing the filtered open and closed loop estimates, modifying the quality metric by a transmission power margin, and determining a maximum rate of data using the modified quality metric.

10. Claim 99 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis B. Odom whose telephone number is 571-272-3046. The examiner can normally be reached on Monday- Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Curtis Odom
May 12, 2005



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